

REMARKS

The Office action of May 14, 2007, has been carefully considered.

The specification has been amended to insert proper subject matter headings, as requested in the Office action. In addition, it was observed that in the course of the USPTO inserting into the specification amended paragraphs from the PCT prosecution, several paragraphs were omitted between paragraphs [0014] and [0015] of the application as published. The specification has now been amended to insert those paragraphs, originally found at the bottom of page 3 of the specification as filed.

Objection has been raised to the claims and a new set of Claims 7 through 15 has now been added to the application. The objections are thought to have been obviated by the submission of these new claims.

Claims 3 through 6 have been rejected under 35 USC 103(a) over Makoto in view of Siegemund. The Office action alleges that Makoto discloses a method for producing multi-layer carbon brushes comprising the steps of the invention, except for the final step of the multi-layer carbon brushes being divided. Siegemund has been cited to show such a process where the final brush is divided into sizes corresponding to the final contours.

Applicants submit that neither of the references actually shows what has been alleged in the Office action.

The invention is directed to a method for producing a plurality of multi-layer carbon brushes, with each of the brushes comprising at least two electrically conductive functional layers made of a carbon material and at least one insulating layer disposed between the electrically conductive layers. In order to form the plurality of brushes, layers of carbon-containing material in powder form are placed into a

mold, with electrically insulating material in powder or film form, in a sequence corresponding to the sequence of the layers to be produced. The layers are pressed to form a plate which is heat-treated and then divided into a plurality of brushes.

The Japanese reference relates to a method for producing a single carbon brush, in a process in which crude powder is placed into a mold and then pressed by an upper and lower punch. The resultant molding is *taken out of the die and baked* at the optimum baking temperature for this powder to turn it into a baked substance, and then another crude powder is placed in the mold of *another die*, and then the first baked substance and a crude powder are placed in the die, and this combination is pressed by another upper and lower punch at predetermined pressure. The molding is taken out of the die and baked at an optimum baking temperature of the second crude powder to obtain a three-layer laminate brush.

This is not the process of the invention, which involves *a single molding and baking step*, followed by dividing the product into multiple brushes; only a single die and pressing tool are required.

The referenced portion of Siegemund at column 13, lines 39 through 51, discloses that the invention of Siegemund is useful in simultaneously controlling the desired orientation of the particles of the brush, the geometrical configuration, especially of the head and foot of the brush, and costs. However, there is nothing in Siegemund which suggests that a plurality of brushes may be formed at the same time, in a method which divides the baked product into the plurality of brushes. The brushes of Siegemund are the result of a multi-axial pressing, but there is no disclosure or suggestion of forming a multi-layer brush.

As the references taken as a whole do not disclose

forming a plurality of brushes using a single pressing step and a single baking step, and do not disclose or suggest dividing the resultant baked product into a plurality of brushes, withdrawal of this rejection is requested.

In view of the foregoing amendments and remarks, Applicants submit that the present application is now in condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Respectfully submitted,



Ira J. Schultz
Registration No. 28666